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ERICSSON INC.
6300 LEGACY DRIVE
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EXAMINER

LIU, HARRY K

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3662

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09/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/595,133 | Applicant(s) STENBERG ET AL. | |
| | Examiner Harry Liu | Art Unit 3662 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>3/2/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The disclosure is objected to because of the following informalities: Missing or unnecessary commas in the entire specification.

Appropriate correction is required.

Specification

1. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: the example mobile (page 1, line 10), from available data (page 2, line 33)(what means available?), With greater precision there is less (page 3, lines 18-19)(comma needed), to most such application (page 3, line 23-24) (does it mean "to this type of application?"), small correlation (page 4, line 15-16) (does it mean "less correlated"?), ratio (page 6, line 12) and second ratio (page 6, line 15) are not clearly defined (which received power is the denominator? Serving cell or the neighboring cell?), to be positioned received signal (page 7, line 5) (does it mean "positioned, "?), fixed network (page 7, line 9)(what does fixed network mean? The cellular GSM network? How is it fixed?), In, e.g., GSM...controller (page 7, line 11-13) , in place of only one (page 7, line 21) (does it mean "instead of one"?). There are simply too many incomplete sentences with unnecessary/missing commas need to be corrected in order to make the specification enabled.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In claim 1 (claim 1, line 4), distance is determined based on delay time and "that direction" from receiver to the transmitter. There is no teaching in specification that distance can be determined from "that direction". In claims 1 & 10, "from a respective a parameter reflecting received" (claim 1, line 5-6) (claim 10, lines 13-14). "and signal level in a co-sited cell/sector" (claim 1, line 8, claim 10, lines 15-16).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 10-13, as best understood by the examiner, are rejected under 35 U.S.C. 102(b) as being anticipated by Larsson (6282427).

Regarding claims 1, 10, Larsson discloses the distance of a mobile transmitter to a site is determined by the propagation delay time/parameter (column 3, lines 34-42) and direction from the transmitter to the receiver (see Fig. 4 below).

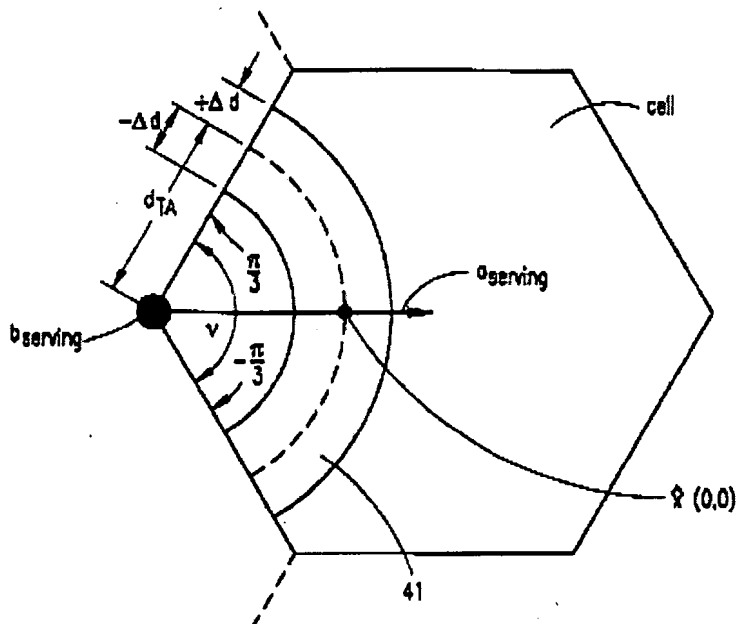


FIG. 4

Regarding claims 2, 11, Larsson discloses the distance determination is based on at least one of the immediate neighbors of the cell where the transmitter is served (see FIG. 2 below).

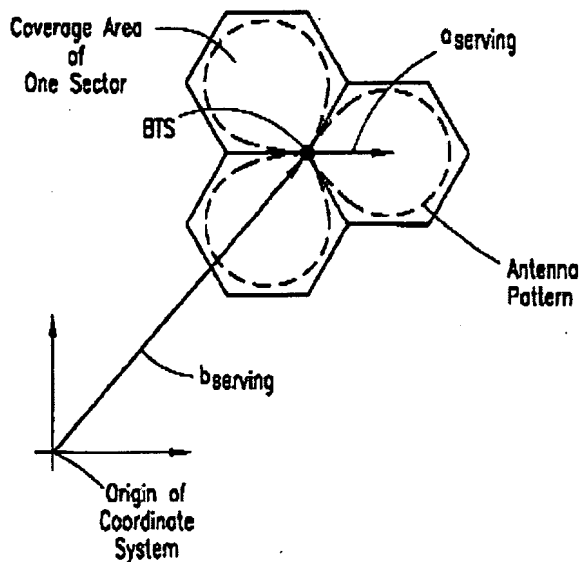


FIG. 2

Regarding claims 3, 12, Larsson discloses the distance determination is based on a linear scale of or dB-scale difference (S/N ratio, see Fig. 15 below) (column 9, lines 16-28).

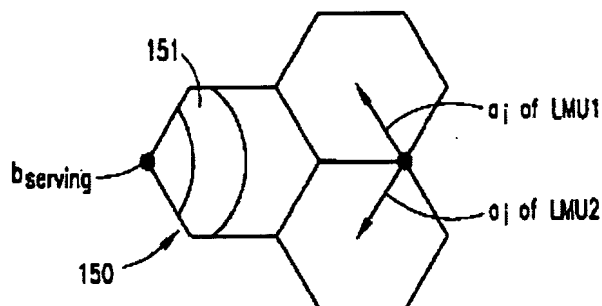


FIG. 15

Regarding claims 4, 13, Larsson discloses the position determination includes cell/sector identity (column 3, lines 34-42).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5, 14, as best understood by the examiner, are rejected under 35 U.S.C. 103(a) as being unpatentable over Larsson (6282427).

Regarding claims 5,14, Larsson discloses the position determination includes averaging the received signal (column 9, lines 16-28) but fails to specifically disclose averaging time or signal level. However, it is known that the two key parameters involved in triangulation for positioning are signal level/power level(claim 5) and time (claim 14). It would have been obvious to take time and power level by averaging to find the position in order to determine a most likely position while ruling out multipath reflection.

8. Claims 6-9, 15-20, as best understood by the examiner, are rejected under 35 U.S.C. 103(a) as being unpatentable over Larsson (6282427), as applied to claims 1,5,10,14 rejection above, and further in view of Mannoja (7069023).

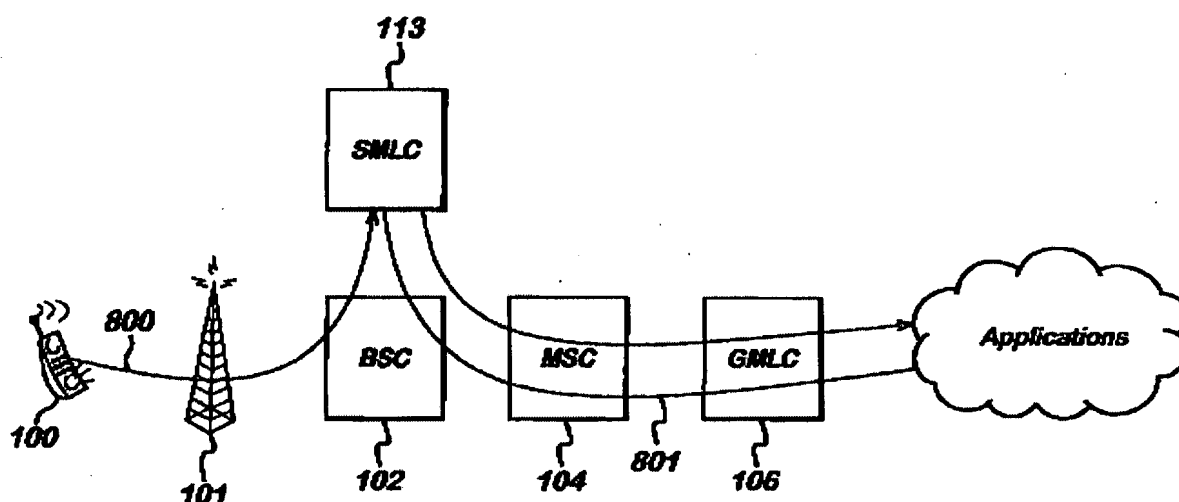
Regarding claims 6-9, 15-18, Larsson discloses the position determination based on average but fails to disclose the average is formed in a network control element (claims 6,15) or standardized interface (A-bis, lub) (claims 7, 16) or BSC (claims 8, 17) or RNC (claims 9, 18). However, Mannoja teaches the use of network control element

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(SMLC, BSC, see Fig. 8 below) and RNC (for column 3, lines 9-25)

controlling/calculating the position of mobile. It would have been obvious to modify Larsson with Mannoja by incorporating SMLC, (A-bis, lub), BSC and RNC into the location service in order to satisfy GSM or UMTS system requirements.

Fig. 8



Regarding claims 19-20,14, Larsson as modified by Mannoja discloses a radio communication system (wireless communication system) (column 2, lines 18-30) (claim 19) for carrying out the method with a plurality of devices (multiple LMUs).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry Liu whose telephone number is 571-270-1338. The examiner can normally be reached on Monday -Thursday and every other Friday..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-270-2338.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Harry Liu
Examiner
Art Unit 3662
August 24, 2007



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